

AMENDMENTS TO THE CLAIMS

Please cancel Claims 1-25 without prejudice.

Please add Claims 26-52 as indicated below.

A complete listing of all claims is presented below with insertions underlined (e.g., insertion), and deletions struckthrough or in double brackets (e.g., ~~deletion~~ or [[deletion]]):

1.-25. (Cancelled)

26. (New) A method of controlling traffic on a data network, said traffic comprising payload data and associated signalling data, the method comprising:

reading a portion of said payload data for traffic of a communications session between a first entity and a second entity communicating over said network;

determining whether said portion of payload data identifies a type of traffic to be controlled;

storing signaling data associated with said portion of payload data;

reading signaling data for traffic on said network and comparing said read signaling data with said stored signaling data to identify further traffic of said controlled type; and

controlling said further traffic session responsive to said identification.

27. (New) A method as claimed in Claim 26, wherein said controlling comprises controlling a route of said further or resumed communications session traffic.

28. (New) A method as claimed in Claim 26, wherein said reading of said communications session traffic includes reading at least a portion of said signaling data for said session traffic, wherein said determining includes determining from said signaling data an address of an originator of said controlled type of traffic, said originator comprising one of said first and second entities, and wherein said signaling comprises sending a signal to said originator using said determined address.

29. (New) A method as claimed in Claim 26, wherein said signaling comprises signaling with said signaling data.

30. (New) A method as claimed in Claim 26, wherein said signaling comprises sending a message in said payload data.

31. (New) A method as claimed in Claim 30, wherein said message includes a request to retry establishing said communications session.

32. (New) A method as claimed in Claim 26, wherein said storing is responsive to said determining.

33. (New) A method as claimed in Claim 26, wherein said communications session traffic reading comprises reading first payload data for a communication from said first to said second entity and second payload data for a communication from said second to said first entity, and wherein said determining whether said payload data identifies a controlled type of traffic determines whether both said first and said second payload data are of said controlled traffic type.

34. (New) A method as claimed in Claim 33, further comprising buffering said first and second payload data for said determining.

35. (New) A method as claimed in Claim 26, wherein said determining comprises comparing said payload data with a signature of said controlled type of traffic.

36. (New) A method as claimed in Claim 26, further comprising signaling, responsive to said determining, to at least one of said first and second entities to interrupt said communications session.

37. (New) A method as claimed in Claim 26, wherein said further traffic comprises an attempt to begin a further communications session of said controlled traffic type or to resume said communications session, and wherein said controlling comprises controlling traffic of said further or resumed communications session.

38. (New) A method as claimed in Claim 26, wherein said network comprises a packet data network and wherein said signaling data includes a destination identifier.

39. (New) A method as claimed in Claim 38, wherein said network comprises an internet protocol (IP) network, in particular a transmission control protocol (TCP) IP network, and wherein said signaling data includes a destination address and port number.

40. (New) A method as claimed in Claim 26, wherein said type of traffic to be controlled includes peer-to-peer protocol network traffic.

41. (New) A method as claimed in Claim 40, wherein said controlling comprises routing said peer-to-peer traffic to a peer-to-peer network gateway.

42. (New) A method as claimed in Claim 40, wherein said controlling comprises routing said peer-to-peer traffic to a peer-to-peer network cache.

43. (New) Processor control code to, when running, control traffic on a data network, said traffic comprising payload data and associated signaling data, the code comprising:

code to read a portion of said payload data for traffic of a communications session between a first entity and a second entity communicating over said network;

code to determine whether said portion of payload data identifies a type of traffic to be controlled;

code to store signaling data associated with said portion of payload data;

code to read signaling data for traffic on said network and to compare said read signaling data with said stored signaling data to identify an attempt to begin a further communications session of said identified traffic type or to resume said communications session; and

code to control traffic of said further or resumed communications session responsive to said identification.

44. (New) A carrier medium carrying the processor control code of Claim 43.

45. (New) A router for controlling traffic on a data network, said traffic comprising payload data and associated signaling data, the router comprising:

a network interface for interfacing with said data network;

a data memory operable to store data to be processed;

an instruction memory storing processor implementable code; and

a processor coupled to said network interface, to said data memory, and to said instruction memory and operable to process said data in accordance with code stored in said instruction memory, said stored code comprising:

code to read a portion of said payload data for traffic of a communications session between a first entity and a second entity communicating over said network;

code to determine whether said portion of payload data identifies a type of traffic to be controlled;

code to store signaling data associated with said portion of payload data;

code to read signaling data for traffic on said network and to compare said read signaling data with said stored signaling data to identify an attempt to begin a further

communications session of said identified traffic type or to resume said communications session; and

code to control traffic of said further or resumed communications session responsive to said identification.

46. (New) A router as claimed in Claim 45, wherein network comprises a packet data network, wherein said signaling data comprises a destination identifier to identify a destination of a packet of data comprising said traffic, and wherein said storing stores a destination identifier for traffic of said controlled type in said data memory responsive to identifying said controlled type of traffic.

47. (New) A router as claimed in Claim 46, wherein said code further comprises code to store portions of said payload data of said communications session sent from both said first and said second entity; and wherein said code to determine whether said payload data identifies traffic of said controlled type is configured to determine when communications from both said first and second entities are of a said controlled type.

48. (New) A carrier medium carrying computer readable code for a router for routing peer-to-peer traffic on an internet protocol (IP) packet data network, the router having a data table identifying peer-to-peer sockets, the code comprising code to:

read payload data of a packet of data traffic;

determine whether said payload data relates to a peer-to-peer protocol;

write socket data for said payload data into said table responsive to said determining; and

route packets of data traffic on said network responsive to said socket data in said data table.

49. (New) A carrier medium as claimed in Claim 48, wherein said code further comprises code to cause closure of at least one end of a connection used for communicating said payload data.

50. (New) A router including a processor and the carrier medium of Claim 43.

51. (New) A router including a processor and the carrier medium of Claim 43 or 48.

52. (New) A router including a processor and the carrier medium of Claim 43 or 49.